

WHAT IS CLAIMED IS:

5

1. A processing apparatus comprising:

a process chamber made of metal for applying a
process to an object to be processes placed in the process
chamber by supplying a process gas to the object to be
10 processed;

a placement stage made of ceramics or a metal
matrix composite located inside the process chamber so
that the object to be processed is placed thereon;

a heating device incorporated into the placement
15 stage;

a support member made of a metal matrix
composite for supporting said placement stage;

a seal member located between said support
member and a wall surface of said process chamber; and

20 a cooling mechanism located in the vicinity of
said seal member so as to cool said seal member.

25

2. The processing apparatus as claimed in claim
1, wherein said support member is joined to a surface of
said placement stage opposite to a surface on which the
object to be processed in placed.

30

3. The processing apparatus as claimed in claim
1, wherein said support member has a substantially flat
shape, and an entire surface of said placement stage
opposite to a surface on which the object to be processed
5 in placed is joined to a flat surface of said support
member.

10

4. The processing apparatus as claimed in claim
1, wherein said support member is formed as a part of a
wall of said process chamber.

15

5. The processing apparatus as claimed in claim
4, wherein said support member is formed as a bottom plate
20 of said process chamber.

25

6. The processing apparatus as claimed in claim
1, wherein said cooling mechanism includes a coolant
passage formed in said support member.

30

7. The processing apparatus as claimed in claim
1, wherein said cooling mechanism includes a coolant
passage formed in a wall of said process chamber.

8. The processing apparatus as claimed in claim 1, wherein said support member is joined to said placement stage by blazing.

5

10

15

20

25

30